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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/061,898	02/01/2002	Caroline Sassano Slone	06213 USA	8865

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EXAMINER

METZMAIER, DANIEL S

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 02/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

A-3-4

Office Action Summary	Applicant No. 10/061,898	Applicant(s) SLONE ET AL.	
	Examiner Daniel S. Metzmaier	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2002 and 12 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 1-19, 22, 29-34 and 37 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 36 is/are allowed.
- 6) ☒ Claim(s) 20, 21, 23-28 and 35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2 & 3</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-37 are pending in the instant application. *Claims 1-12 have been examined and claims 13-29 have been withdrawn as directed to non-elected inventions at this time.* The Information Disclosure Statement (IDS) filed February 1, 2002, and March 12, 2002 have been entered as Paper No. 2 and 3, respectively.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-19, drawn to methods of controlling foam, classified in class 516, subclass 129.
 - II. Claims 20-35, drawn to aqueous compositions incorporating a foam control agent, classified in class 504, subclass 363.
 - III. Claims 36-37, drawn to a compound, classified in class 564, subclass 476.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process may be performed on compositions other than those claimed such as in pulp and paper compositions or any of the alternatively claimed aqueous coating, ink, agricultural, fountain solution, adhesive, varnish compositions of claims 29-34. More specifically, each of the different compositions claimed in claims 29 to 34 would not be required to search the methods of controlling foam set forth in claims 1-19.

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3. Inventions of Group II and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination does not require ethylenediamine capped with 3 or 4 isobutyl glycidyl ethers or di(aminopropyl)diethylene glycol capped with 1 to 4 n-butyl glycidyl ethers. The subcombination has separate utility such as use as a coupling agent in emulsions and/or solvent in coating compositions.
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
5. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.
-

Election of species

6. This application contains claims directed to the following patentably distinct species of the claimed invention: claims 29-35 directed to various aqueous compositions. The various compositions are classified in different classification areas including class 504 for agricultural compositions, class 106 for coating compositions, class 106 for ink compositions, class 524 for adhesive compositions, ect..

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-28 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Upon reconsideration, Group III, claims 36 and 37, have been collapsed into the composition claim Group II, claims 25-35. Claims 36 and 37 will be examined to the extent they read on the elected species.

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7. During a telephone conversation with Michael Leach on January 9, 2003 a provisional election was made with traverse to prosecute the invention of Group II and the method species of petroleum gas scrubbing and compounds of example 65 (EDA/4BGE), claims 20-21, 23-28 and 35-36. Affirmation of this election must be made by applicant in replying to this Office action. Claims 22, 29-34 and 37 have been withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Information Disclosure Statement

9. The U.S. Patent application cited in the IDS filed 12 March 2002 (Cert. Of Mailing ~~5-March-2002~~) has been recited therein as other documents since it is not a published U.S. patent document and said document number and filing date have not been set forth as such. See 37 CFR 1.98(b)(3), "(3) Each U.S. application listed in an information disclosure statement must be identified by the inventor, application number, and filing date. The IDS filed 20 July 2001 does not provide a copy of foreign patents but a Beilstein abstract. The source documents, which are from the J. Org. Chem. Have been cited on the Form PTO-892.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 20-21, 23-28 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The scope of the claim 35 is indefinite since the gas scrubbing composition comprising in water 10 to 70 wt% of at least one amine and 1 to 500 ppm of the alkyl glycidyl ether-capped diamine foam control agent. More specifically, the claimed compositions are indefinite since the amine in 10 to 70 wt% and the alkyl glycidyl ether-capped diamine foam control agent are indistinct because the diamine foam control agent is an amine. It is unclear how much of the diamine foam control agent is attributed to the 10 to 70 wt% amine concentration and how much to the 1 to 500 ppm diamine foam control agent concentration.

The proviso statement in the last three lines of claim 20 is confusing. It is unclear whether the initial foam height refers to the foam height of the waterborne composition and the industrial process having DOSS or the foam height in the 0.1 wt% aqueous DOSS solution.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 20-21, 23, 25 and 27-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Klimpel et al, US 4,797,202. Klimpel et al (example 1) discloses compounds (table 1, 10th compound down) reading on those claimed added at 50 ppm to a slurry of lime and copper ore having a pH of 11.5 in water. Said composition reads on the claimed aqueous gas scrubbing compositions. The compositions would have been expected to inherently function in the use as a scrubbing composition.

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The aqueous lime composition having a pH of 11.5 would have functioned as an acid gas scrubbing composition. The characterization of the compositions as a gas scrubbing composition does not distinguish the aqueous compositions disclosed in the Klimpel et al reference.

Klimpel et al discloses the empirical structure of the instantly-claims substituent R' as H₉C₄-. Since the n-butyl and isobutyl substituents have the same structure and the Klimpel et al makes no distinction there between, it is concluded the Klimpel et al reference disclosure would encompass both the n-butyl and the isobutyl forms.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klimpel et al, US 4,797,202. Klimpel et al discloses aqueous compositions as set forth in the above anticipation rejection.

To the extent the Klimpel et al reference differs from claims 27 or 28 in the use of either the n-butyl or the iso-butyl substituent, Klimpel et al makes no distinction between the normal and iso- substituents.

It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to employ the structural isomers of the compounds disclosed in the Klimpel et al reference with the expectation of substantially the same results.

Structurally similar compounds are generally expected to have similar properties.

See MPEP 2144.09.

17. Claims 20-21, 23 and 25 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kao Corp, JP 2001-

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107083, as evidenced by applicants' translation and the Japanese Patent Office machine translation. The Japanese Patent Office machine translation is referred to hereafter. Kao Corp (paragraph [003] et seq) discloses detergent compositions that utilize compounds corresponding to the disclosed formula I. Formula I reads on the claimed formula when $m = 1$, $n = 1$ and R1 has a carbon number of 4 to 22.

Kao Corp differs from the claims in the exemplified use of said compounds as a defoamer. Kao Corp (example 2, [0023], [0024], [0025]) exemplifies compounds corresponding to the instantly claimed values of R' = C8 alkyl group, and a degree of adduction of 1.

Kao Corp teaches utilizing the compounds reading on the instantly claimed formula. One having ordinary skill in the art at the time of the invention reading of the Kao Corp reference, would reasonably conclude the compounds would have the same or substantially the same properties as those exemplified.

It would have been obvious to one of ordinary skilled in the art at the time of applicants-invention-to utilize the Kao Corp disclosed analogous compounds to those exemplified in the Kao Corp reference with a reasonable expectation of the same or similar properties. The foam control properties in DOSS are interpreted as a physical property of the compounds and would have been expected to have been inherent to the compounds disclosed. Said properties have not been shown to be distinct from the Kao Corp compounds since they are a hydrophobic base and would have been expected to react and/or interact with some of the foaming anionic surfactant making it more hydrophobic.

Allowabl Subj ct Matt r

18. Claims 24, 26 and 35 would be allowable if limited to the elected species, rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

19. Claim 36 is allowed.


20. The following is a statement of reasons for the indication of allowable subject matter: the prior art does not disclose or fairly suggest the compounds set forth in claim 36. The prior art does not disclose or fairly suggest the aqueous compositions directed to aqueous acid gas scrubbing compositions employing EDA/4BGE.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (703) 308-0451. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson can be reached on (703) 308-2340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Daniel S. Metzmaier
Primary Examiner
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